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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.             | CONFIRMATION NO.            |
|---|-------------|----------------------|---------------------------------|-----------------------------|
| 10/551,904  | 09/26/2006  | Giorgio Bonanomi     | PB60172                         | 8380                        |
| 20462 7590 09/26/2008<br>SMITHKLINE BEECHAM CORPORATION<br>CORPORATE INTELLECTUAL PROPERTY-US, UW2220<br>P. O. BOX 1539<br>KING OF PRUSSIA, PA 19406-0939 |             |                      |                                 |                             |
|   |             |                      | EXAMINER<br>RAHMANI, NILOOFAR   |                             |
|   |             |                      | ART UNIT<br>1625                | PAPER NUMBER                |
|   |             |                      | NOTIFICATION DATE<br>09/26/2008 | DELIVERY MODE<br>ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

US\_cipkop@gsk.com

### Office Action Summary

**Application No.**

10/551,904

**Applicant(s)**

BONANOMI ET AL.

**Examiner**

NILOOFAR RAHMANI

**Art Unit**

1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16, 20, 21 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) 1-16 and 24-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date 10/05/2005
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 1-16, 20-21, 24-27 are pending in the instant application. Claims 17-19, 22-23 are cancelled. Applicant's election without traverse of group I, claims 1-16, and 24-27(in part), wherein Q is a 6-membered aromatic group, drawn to compounds, pharmaceutical compositions and process for the preparation of a compound of formula (I) in the reply filed on 07/22/2008 is acknowledged. Applicant's request to rejoin the method of use claims 20-21 of group (III) is acceptable.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-16, 20-21 and 24-27 in part wherein Q is a 6-membered aromatic ring are examined. The remaining subject matter of claims 11-16, 20-21, 24-27 are withdrawn per 37 CFR 1.142(b).

### ***Priority***

2. This application was filed on 09/26/2006, and is a 371 of PCT/EP04/03678, filed on 04/05/2004, which claims priority of UNITED KINGDOM 0308025.6, filed on 04/07/2003.

### **3. *Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 20-21 are rejected under 35 U.S.C. 112, first paragraph, because the specification, does not reasonably provide enablement for treating any and all

diseases mediated by the 5HT<sub>2c</sub> receptor, including depression and anxiety. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is “undue”. These factors include 1) the breadth of the claims, 2) the nature of the invention, 3) the state of the prior art, 4) the level of one of ordinary skill, 5) the level of predictability in the art, 6) the amount of direction provided by the inventor, 7) the existence of working examples, and 8) the quantity of experimentation needed to make or use the invention based on the content of the disclosure. In *re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

- 1) The breadth of the claims.
- 2) The nature of the invention,
- 3) The state of the prior art,
- 4) The level of one of ordinary skill,
- 5) The level of predictability in the art,
- 6) The amount of direction provided by the inventor,
- 7) The existence of working examples,
- 8) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

**The nature of the invention:** The instant invention is drawn to method of treating of a CNS disorder in a mammal, which comprises administering to the

sufferer a therapeutically safe and effective amount of a compound as claimed in claim 1.

**The state of the prior art:** “ At the time that the invention was made, the scientific literature tends to show the speculative role of 5HT<sub>2c</sub> receptor and its role in the treatment of CNS disorders. “These data suggest that the discriminative stimuli produced by mCPP are based upon its selective actions on 5HT receptors and their use in behavioral pharmacology may offer another tool in studying pharmacology of 5HT based anxiogenic and anxiolytic drugs.” (Emphasis added). ” (Wallis et al., Progress in neuro-psychopharmacology & biological psychiatry, (1998 Apr) Vol. 22, No. 3, pp. 547-65.)

**The predictability in the art:** It is noted that the pharmaceutical art is unpredictable, requiring each embodiment to be individually assessed for physiological activity. *In re Fisher*, 427 F. 2d 833, 166 USPQ 18 (CCPA 1970) indicates that the more unpredictable an area is, the more specific enablement is necessary in order to satisfy the statute. In the instant case, the instantly claimed invention is highly unpredictable since one skilled in the art would recognize that in regards to the therapeutic effects, whether or not the compounds of formula of claim 1 would be useful for treating a pharmacological condition in a subject.

**Amount of guidance/working examples:** Applicant provides no guidance for using a therapeutically effective amount of a compound of Formula (I) could treat any and all known or unknown diseases. Nor does applicant identify what

diseases are treatable by therapeutically effective amount of a compound of Formula (I).

**The breadth of the claims:** The breadth of claims is drawn to method of treating of a CNS disorder in a mammal, which comprises administering to the sufferer a therapeutically safe and effective amount of a compound as claimed in claim 1.

**The quantity of undue experimentation needed:** Since the guidance and teaching provided by the specification is insufficient for treating diseases associated with therapeutically effective amount of a compound of Formula (I) is efficacious, one of ordinary skill in the art, even with high level of skill, is unable to use the instant compounds as claimed without undue experimentation.

**The level of the skill in the art:** The level of skill in the art is high. However, due to the unpredictability in the pharmaceutical art, it is noted that each embodiment of the invention is required to be individually assessed for physiological activity by in vitro and in vivo screening to determine which compounds exhibit the desired pharmacological activity and which diseases would benefit from this activity.

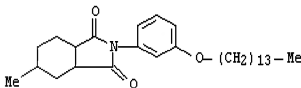
Taking all of the above into consideration, it is not seen where the instant claims 20-21, for treating diseases associated with therapeutically effective amount of a compound of Formula (I) is efficacious, have been enabled by the instant specification.

**4. Closest Art**

The closest art for the claims 1-16 and 24-27 is Hagemann et al., DE 19632927, which includes the exemplified compound:

**RN** 203577-70-2

**CN** 1H-Isoindole-1,3(2H)-dione, hexahydro-5-methyl-2-[3-(tetradecyloxy)phenyl]-



, which has a non aromatic ring attached to the pyrrolidine ring. At the position corresponding to non aromatic ring, the instant application requires that this position must be aromatic ring. Therefore, the claims are free of prior art.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Niloofar Rahmani whose telephone number is 571-272-4329. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres, can be reached on 571-272-0867. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/NILOOFAR RAHMANI/

09/17/2008

/Janet L. Andres/

Supervisory Patent Examiner, Art Unit 1625